MBTA Key Bus Route Improvement Program

The MBTA is committed to improving your bus riding experience. Over the next two years, the MBTA will plan and implement a series of enhancements to 15 bus routes, chosen for their high ridership and frequency of service. This project, known as the **Key Bus Route Improvement Program**, will help reduce trip times; improve accessibility; enhance customer comfort, convenience and safety; and make the routes more reliable and cost-effective.

Utilizing $10 million in grant funding through the American Recovery and Reinvestment Act (ARRA) the MBTA now has the opportunity to implement the Key Bus Route Improvement Program. This one-time opportunity to improve service quality will be accomplished by implementing a combination of the following: bus stop location improvements, bus stop amenities – shelters, benches, trash receptacles and signage, curb extensions, and accessibility enhancements, in addition to traffic signal upgrades.

Working with local municipalities, all Key Bus Route improvements will be developed with the help of public input. The public process for Routes 23 and 39 has recently been completed, while an ongoing process for the Route 28 is being coordinated with MassDOT's Roxbury Dorchester Mattapan Transit Needs Study. The remaining 12 routes will be improved over the next two years through a phased implementation approach, with a series of community workshops that began January 2011. Planning for Routes 1, 57 and 66 is complete and preliminary design is nearing completion. Initial community meetings were held in January/February 2011 to present preliminary recommendations. Based on municipal and community feedback some of these recommendations were refined and presented for further comment in March 2011. All feedback was incorporated into progress design plans, which are being presented for comment tonight. Your input at this meeting will help inform how we improve Bus Routes 1, 57 and 66. We look forward to collaborating with you to provide a better bus service!

For more information and project updates please visit www.mbta.com/keybusroutes.

MBTA Key Bus Route 3rd Meetings

Route	Date	Time	Location	Address
66	Monday, June 6	6:00 – 7:30	Honan-Allston Branch Library	300 No. Harvard St, Boston
1	Monday, June 13	6:30 – 8:00	United South End Settlements	566 Columbus Ave, Boston
1	Tuesday, June 14	6:30 – 8:00	Cambridge Senior Center	806 Mass Ave, Cambridge
57	Wednesday, June 22	6:30 – 8:00	Jackson Mann Community Center	500 Cambridge St, Boston
66	Thursday, June 23	6:30 – 8:00	Tobin Community Center	1481 Tremont St, Boston

MBTA Key Bus Route Improvement Program

Glossary and Abbreviations of Terms

Bus Stop Location – Nearside: bus stop is located before an intersection, or driveway.
Bus Stop Location – Farside: bus stop is located after an intersection, or driveway.
Bus Stop Location – Mid-block: bus stop is located in the middle of a street block.

Companion Stop – bus stops are typically located in pairs, one on each side of the street.

Curb extension (or bulb out) – sidewalk is widened in a particular section, sometimes either side of a crosswalk, or at the start/end of on-street parking.

Generic/Rear Sign – MBTA bus stop sign that is located at the rear of the stop to define the end of the bus stop.

Landing pad/area – an area at the front of the bus stop where customers board and alight the bus.

Queue jump – priority is given to buses at an intersection. It can also come in a variety of forms such as a shared right turn/bus lane allowing the bus to access a farside stop more quickly or with a bus only signal, allowing buses to advance ahead of the general traffic.

Rt. Descr. Sign (Route Descriptive Sign) – MBTA bus stop sign that is located at the front of the stop and lists bus route and customer information.

Sharrow – pavement marking on the roadway that indicates to bicyclists that the road space they are entering is shared, i.e. with a bus stop or general traffic.

TSP (Transit Signal Priority) – priority is given to buses at traffic signals. This can come in a variety of forms, but the most common form is for the green time to be extended for all traffic when a bus is approaching the intersection. This will only be effective for farside or mid-block stops.

Key Bus Route Improvement Program
Route 1 - Proposed Recommendations

INBOUND

Bus Stop Sequence	Stop ID	Street	Stop Name / Cross Street	Dist. to Next Stop (ft)	Time to Next Stop (min)	Stop Location	Routes serving stop	Route 1 Ons (Fall09)	Route 1 Offs (Fall09)	Ons (Total All Routes)	Offs (Total All Routes)	Municipality	Sidewalk Width (ft)	Existing Shelter	Existing Bench	Existing Bus Stop Length (ft)	Proposed Recommendations
1	110	Mass Av	Holyoke St - Holyoke Gate	820'	4	near side	1, 68, 69	679	0	1166	748	Cambridge	10	No	Yes	72.5	Add bus stop pavement markings.
2	2168	Mass Av	Johnston Gate	1440'	7	mid-block	1, 66, 68, 69	253	2	615	1043	Cambridge	11	No	No	47	Coordinated with Route 66 recommendations. Add bench, and bus stop pavement markings, and relocate bus stop signs to provide bus stop length for 2 buses, without blocking Harvard Uni driveway. Add a narrow, non-advertising, high quality black shelter to be approved by the Historic Commission.
3	2166	Quincy St	Broadway opp Fogg Museum	850'	4	far side	1, 68, 69	130	9	137	100	Cambridge	5.75	No	No	57	Add pavement markings.
4	2167	Quincy St	Harvard St	680'	3	mid-block	1, 68	81	0	81	4	Cambridge	8.75	No	No	65	Repaint pavement markings.
5	66	Mt Auburn St	DeWolfe St	740'	4	far side	1	87	0	87	0	Cambridge	8	No	Yes	58.5	Relocate rear sign onto post.
6	67	Mt Auburn St	Putnam Ave	930'	4	near side	1	203	24	203	24	Cambridge	8	CEMUSA	Yes	68	None.
7	68	Mass Av	Bay St	460'	2	near side	1	195	25	195	25	Cambridge	12	CEMUSA	Yes	64	Lengthen stop to provide 90-100' of curb space = -1 metered parking space. Relocate rearsign closer to crosswalk and add pavement markings.
8	69	Mass Av	Hancock St	720'	3	near side	1	112	23	112	23	Cambridge	9	No	No	43	Revised Recomm: Lengthen stop to provide 90-100' of curb space = -2 metered parking spaces and relocate front sign within 1' of crosswalk. Add bench and pavement markings.
9	70	Mass Av	Sellers St	260'	1	near side	1	42	27	42	27	Cambridge	10	No	Yes	56	Eliminate stop due to low ridership, and insufficient bus stop length. Closest stop 260' away at Pleasant St has many bus stop amenities. Revised stop spacing is 980'.
10	71	Mass Av	Pleasant St	1050'	5	near side	1	132	69	132	69	Cambridge	19	CEMUSA	Yes	71	Revised Recomm: Lengthen stop by relocating rear sign = -1-2 metered parking spaces. Add bus stop pavement markings.
11	72	Mass Av	Pearl St	1230'	6	near side	1, CT1, 47, 64, 70	964	265	2014	1826	Cambridge	20	Central Sq. Colored Glass Canopy	Yes	139	Revised Recomm: Add bus stop pavement markings.
12	73	Mass Av	Sidney St	660'	3	far side	1, CT1, 64, 70	290	90	398	119	Cambridge	15	CEMUSA	Yes	102	None.
13	731	Mass Av	Landsdowne St	560'	3	far side	1	90-140	20-50	90-140	20-50	Cambridge	15	No	No	60	Eliminate stop because short curb extension does not allow easy access, current stop length is too short and to lengthen it would require reducing adjacent parking. Expand adjacent parking (~2 spaces). 600 ft to closest stop. Revised bus stop spacing is 1220'.
14	74	Mass Av	Albany St	940'	4	far side	1	138	78	138	78	Cambridge	15	CEMUSA	Yes	54	Reconstruct sidewalk to provide level landing area between shelter and front of bus stop in place of disused driveway.
15	75	Mass Av	#84	550'	3	mid-block	1, CT1	393	248	518	278	Cambridge	13	MIT-Glass Panels, flat ceiling	Yes	84	None.

For explanation of terms, please see Glossary and Abbreviations handout.

Key Bus Route Improvement Program
Route 1 - Proposed Recommendations

INBOUND

Bus Stop Sequence	Stop ID	Street	Stop Name / Cross Street	Dist. to Next Stop (ft)	Time to Next Stop (min)	Stop Location	Routes serving stop	Route 1 Ons (Fall09)	Route 1 Offs (Fall09)	Ons (Total All Routes)	Offs (Total All Routes)	Municipality	Sidewalk Width (ft)	Existing Shelter	Existing Bench	Existing Bus Stop Length (ft)	Proposed Recommendations
16	76	Mass Av	Memorial Dr	2590'	12	mid-block	1	34	3	34	3	Cambridge	15	No	No	102	Eliminate stop due to proximity to MIT 550' away and to improve traffic flow. Companion stop to remain because of the low number of boardings, thus delay is minimal.
17	77	Mass Av	Beacon St	750'	4	near side	1, CT1	29	245	39	296	Boston	15	No	No	130	Revised Recomm: Retain stop. Add trash receptacle, bus stop pavement markings, and rear sign.
18	78	Mass Av	Comm Av	410'	2	far side	1	33	158	33	158	Boston	16	Wall	Yes	93	Remove stop to improve stop spacing (existing shelter will need to be relocated). 400' to Newbury St. Revised stop spacing with the relocation of Beacon would be ~1100'.
19	79	Mass Av	Newbury St	970'	5	far side	1, CT1	411	919	549	1107	Boston	10	Long Metal shelter on bridge	Yes	53	Relocate front sign further south away from hydrant for a better landing area. Repair sidewalk at the corner of Newbury St. Consider adding bus lane from Newbury St to Bolyston St. At Boylston St, it could be a shared right turn/bus lane.
20	80	Mass Av	#183 opp Christian Science Center	800'	4	mid-block	1	103	143	103	143	Boston	22	No	No	65	Consolidate with Westland at new stop midblock at hydrant.
	NEW STOP	**Mass Av**	**opp Christian Science Center**			**mid block**						**Boston**					Locate new stop midblock at fire hydrant. Add shelter, trash receptacle and pavement markings. Revised bus stop spacing would be ~ 1300' from Newbury St and ~800' to Huntington Av.
21	81	Mass Av	Westland Ave	460'	2	near side	1, CT1	184	290	213	333	Boston	32	Wall	Yes	66	Consolidate with Opp CSC as above.
22	82	Mass Av	Huntington Ave	500'	2	far side	1, CT1	193	153	253	179	Boston	22	Wall	Yes	57	Add trash receptacle and pavement markings.
23	187	Mass Av	Massachusetts Ave Station	500'	2	mid-block	1, CT1	527	254	729	323	Boston	23	Wall	Yes	103	Revised Recomm: Improve stop in conjuction with Mass Ave reconstruction. Add bus stop pavement markings and relocate front sign to provide 100-110' of curb space from the proposed bump out.
24	83	Mass Av	Columbus Ave	730'	3	near side	1	51	68	51	68	Boston	18	No	No	80	Relocate front sign onto sign post.
25	84	Mass Av	Tremont St	930'	4	far side	1, CT1	39	142	47	163	Boston	8	No	No	60	Remove generic sign at front of stop and replace with front sign removed from lamppost. Relocate front sign further south to provide sufficient bus stop length = -1 resident space.
26	85	Mass Av	Shawmut Ave	430'	2	far side	1	13	136	13	136	Boston	8	No	No	60	Eliminate stop, revised recomm includes elimination of companion outbound stop to improve bus stop spacing. 2-3 parking spaces could be reinstated, although due to the absence of a front sign the bus stop seems to already be taken up by parking. Revised bus stop spacing is 1360'.

Key Bus Route Improvement Program
Route 1 - Proposed Recommendations

INBOUND

Bus Stop Sequence	Stop ID	Street	Stop Name / Cross Street	Dist. to Next Stop (ft)	Time to Next Stop (min)	Stop Location	Routes serving stop	Route 1 Ons (Fall09)	Route 1 Offs (Fall09)	Ons (Total All Routes)	Offs (Total All Routes)	Municipality	Sidewalk Width (ft)	Existing Shelter	Existing Bench	Existing Bus Stop Length (ft)	Proposed Recommendations
27	59	Mass Av	Washington St	750'	4	far side	1, CT1	66	204	69	287	Boston	10	No	No	68	Install front sign and provide sufficient bus stop length. Add trash receptacle. Add pavement markings.
28	854	Mass Av	Harrison Ave	590'	3	far side	1, CT1	440	841	441	1169	Boston	8	Wall	Yes	85	Replace front sign and add pavement markings.
29	856	Mass Av	Albany St	420'	2	near side	1	126	211	126	211	Boston	8	Wall	Yes	67	Add trash receptacle and relocate generic sign at front to rear of stop, on a pole and add a front sign on a pole at front of stop, providing 4ft clear path between roadway and shelter.
30	10099	Albany St	Northhampton St	840'	4	far side	1	13	33	13	33	Boston	7	No	No	65	Eliminate stop to improve bus stop spacing (companion stop also proposed for elimination) and existing low ridership. Revised bus stop spacing is 1180'.
31	10100	Albany St	Melnea Cass Blvd	700'	3	TBD	1	5	96	5	96	Boston	6	No	No	57	Relocate stop to farside of Randall St., but far enough forward to allow vehicles to turn right out of Randall before encroaching on the bus stop. Investigate signal improvements and adding pavement markings. Due to limited sidewalk width along Albany St, the proposed landing area will only be 6' deep.
32	10101	Melnea Cass Blvd	Harrison Ave	700'	3	TBD	1	1	32	1	32	Boston	7	No	No	-	Relocate stop farside and add a concrete pad and trash receptacle.
33	61	Washington St	Melnea Cass Blvd	400'	2	far side	1	1	33	1	33	Boston	15	Silver Line-Steel canopy	Yes	60	Will be considered as part of Roxbury Dorchester Mattapan Transit Needs Study.
34	62	Washington St	Williams St	330'	2	near side	1, 8	3	75	15	90	Boston	9	No	No	75	Will be considered as part of Roxbury Dorchester Mattapan Transit Needs Study.
35	63	Washington St	Ruggles St	820'	4	TBD	1, 8	1	61	3	76	Boston	9	No	No	54	Will be considered as part of Roxbury Dorchester Mattapan Transit Needs Study.
36	64	Busway	Dudley Station - Harvard Side	N/A		TBD	1, 15+ others	-	1033	2451	2674	Boston					Will be considered as part of Roxbury Dorchester Mattapan Transit Needs Study.

OUTBOUND

Bus Stop Sequence	Stop ID	Street	Stop Name / Cross Street	Dist. to Next Stop (ft)	Time to Next Stop (min)	Location	Routes serving stop	Route 1 Ons (Fall09)	Route 1 Offs (Fall09)	Ons (Total All Routes)	Offs (Total All Routes)	Municipality	Sidewalk Width (ft)	Existing Shelter	Existing Bench	Existing Bus Stop Length (ft)	Proposed Recommendations
1	64	Busway	Dudley Station - Harvard Side	630'	3	Busway	1, 15+ others	1191	-	-	-	Boston					Will be considered as part of Roxbury Dorchester Mattapan Transit Needs Study.
2	1	Washington St	opp Ruggles St	640'	3	far side	1, 8, 47, 170	85	1	172	22	Boston	9	Wall	Yes	68	Will be considered as part of Roxbury Dorchester Mattapan Transit Needs Study.
3	2	Washington St	Melnea Cass Blvd	670'	3	mid-block	1, 8, 47, 170	59	15	95	47	Boston	7	No	No	65	Will be considered as part of Roxbury Dorchester Mattapan Transit Needs Study.
4	6	Melnea Cass Blvd	Harrison Ave	1010'	5	near side	1, 47	28	17	34	29	Boston	7	MBTA	Yes	175	None.
5	10003	Albany St	opp Randall St	600'	3	mid-block	1, 47	17	8	24	9	Boston	8	No	No	104	Add rear sign and pavement markings.
6	10004	Albany St	opp Northampton St	560'	3	near side	1, 47	4	19	9	46	Boston		No	No	125	Eliminate stop to improve bus stop spacing (companion also proposed for elimination) and low ridership. Revised bus stop spacing would be 1160'
7	57	Mass Av	Albany St	560'	3	far side	1	290	250	290	250	Boston	9	Wall	Yes	58	Add bus stop pavement markings and restripe crosswalk. Add front sign. Investigate if the City is planning to repave the asphalt area in front of the shelter.
8	58	Mass Av	Harrison Ave	750'	4	near side	1, CT1	787	286	1017	287	Boston	10	Wall	Yes	114	Shorten stop to 97' and add 1 metered parking space. Add pavement markings to define bus stop area.
9	10590	Mass Av	Washington St	490'	2	far side	1, CT1	233	44	282	45	Boston	7	No	No	75	Add bench, trash receptacle and pavement markings.
10	86	Mass Av	Shawmut Ave	970'	5	far side	1, 170	95	19	95	19	Boston	9	No	No	65	Remove stop and reinstate 3 parking spaces.
11	87	Mass Av	Tremont St	540'	3	far side	1 , CT1, 170	127	55	157	65	Boston	7.5	No	No	65	Add pavement markings.
12	88	Mass Av	Columbus Ave	530'	3	near side	1, 170	102	63	102	63	Boston	11	Wall	Yes	120	Relocate rear sign farside of driveway and add pavement markings.
13	188	Mass Av	Mass Av Station	390'	2	mid-block	1, 170	227	480	227	480	Boston	8	Wall	Yes	107	Revised Recomm: Improve stop in conjuction with Mass Ave reconstruction. Add bus stop pavement markings. Relocate rear sign to provide 100-110' of curb space from the proposed bump out.
14	89	Mass Av	St Boltolph St	550'	3	far side	1, 170	226	143	226	143	Boston	15	Wall	Yes	80	Although close to Mass Ave Station retain stop. Relocate front sign to provide sufficient bus stop length. Add pavement markings.

OUTBOUND

Bus Stop Sequence	Stop ID	Street	Stop Name / Cross Street	Dist. to Next Stop (ft)	Time to Next Stop (min)	Location	Routes serving stop	Route 1 Ons (Fall09)	Route 1 Offs (Fall09)	Ons (Total All Routes)	Offs (Total All Routes)	Municipality	Sidewalk Width (ft)	Existing Shelter	Existing Bench	Existing Bus Stop Length (ft)	Proposed Recommendations
15	90	Mass Av	Westland Ave	810'	4	near side	1, CT1, 170	357	111	395	131	Boston	12	No	No	110	Consolidate with Clearway at new stop nearside of Norway. Companion stop (with shelter) also proposed for consolidation. Revised bus stop spacing would be 1360'.
	New Stop	**Mass Av**	**Norway**			**near side**						**Boston**					Consolidate Westland and Clearway at a new stop near side of driveway/Norway St. Construct landing area and add shelter and pavement markings. Revised bus stop spacing would be ~1000' from St. Botolph St and ~1200' to Newbury St.
16	91	Mass Av	Clearway St	470'	2	near side	1, 170	109	77	109	77	Boston	15	Wall	Yes	67	Consolidate with Westland at new stop nearside of Norway.
17	92	Mass Av	Belvidere St	580'	3	far side	1, 170	118	138	118	138	Boston	15	No	No	63	Eliminate stop to provide better stop spacing, improve pedestrian and vehicular flow, lack of a companion stop and bus stop currently traverses a crosswalk. Also clear landing area is limited with significant bicycle parking demand. Revised bus stop spacing would be 1200'.
18	93	Mass Av	Newbury St	380'	2	near side	1, CT1	939	381	1181	494	Boston	8	Building Overhang	No	195	Relocate bus stop sign further south, slightly closer to Hynes Sta. Provide bus stop pavement markings at the stop. Add bus lane from Boylston St to Newbury St. and bus advance signal on approach to Newbury St.
19	94	Mass Av	Comm Av	680'	3	mid-block	1	152	16	152	16	Boston	14	Wall	Yes	75	Eliminate stop to improve stop spacing (existing shelter will need to be relocated). Revised bus stop spacing would be 1060'.
20	95	Mass Av	Beacon St	2660'	13	near side	1, CT1	246	38	336	41	Boston	15	No	No	48	Revised recomm: Investigate adding a shelter. Relocate rear sign to provide sufficient bus stop length = -2 metered parking spaces. Add pavement markings.
21	96	Mass Av	Memorial Drive	600'	3	far side	1	1	77	1	77	Cambridge	13	No	No	90	Add trash receptacle. Add Rt Desc. sign in place of generic sign and move generic sign to rear of stop.
22	97	Mass Av	#77	810'	4	mid-block	1, CT1	345	315	366	499	Cambridge	13	MIT double - steel & glass, flat roof	Yes	65	Revised Recomm: Add bus stop pavement markings.
23	99	Mass Av	Albany St	610'	3	near side	1	49	133	49	133	Cambridge	15	CEMUSA	Yes	50	Revised Recomm: Add bus stop pavement markings. Add trash receptacle.
24	100	Mass Av	Front St	690'	3	near side	1	29	133	29	133	Cambridge	15	No	No	45	Eliminate stop for better stop spacing and insufficient bus stop length. Install 2-3 parking spaces at former stop. Revised stop spacing is 1310'.
25	101	Mass Av	Sidney St	1350'	6	near side	1, CT1	63	242	68	367	Cambridge	16	CEMUSA	Yes	100	Relocate front sign before crosswalk. Add pavement markings

OUTBOUND

Bus Stop Sequence	Stop ID	Street	Stop Name / Cross Street	Dist. to Next Stop (ft)	Time to Next Stop (min)	Location	Routes serving stop	Route 1 Ons (Fall09)	Route 1 Offs (Fall09)	Ons (Total All Routes)	Offs (Total All Routes)	Municipality	Sidewalk Width (ft)	Existing Shelter	Existing Bench	Existing Bus Stop Length (ft)	Proposed Recommendations
26	102	Mass Av	Prospect St	900'	4	near side	1	304	944	304	944	Cambridge	20	Cambridge-colored glass caNopy, steel structure	Yes	57	Revised Recomm: Add pavement markings.
27	104	Mass Av	Bigelow St	380'	2	far side	1	81	95	81	95	Cambridge	16	CEMUSA	Yes	70	Revised Recomm: Add pavement markings. Replace rear no stopping sign with MBTA generic sign.
28	105	Mass Av	Clinton St	530'	3	far side	1	13	75	13	75	Cambridge	10	No	No	60	Eliminate stop for better stop spacing, and low ridership and replace with 1-2 parking spaces. Previous stop at Bigelow is 380' away. Revised stop spacing is ~1100ft with the relocation of Hancock.
29	106	Mass Av	Hancock St	660'	3	near side	1	20	118	20	118	Cambridge	10	No	No	43	Relocate stop farside of Hancock St. and consolidate with Dana St. Hydrant will be to rear of stop. Bus will use driveway to exit stop = -2 short term parking spaces but 3 could be gained at existing bus stop.
30	107	Mass Av	Dana St	720'	3	far side	1	20	210	20	210	Cambridge	12	No	No	56	Consolidate with Hancock St, as above. Install parking in existing stop location. Revised stop distance is ~1200'.
31	108	Mass Av	Trowbridge St	970'	5	far side	1	22	215	22	215	Cambridge	10	No	No	70	None.
32	109	Mass Av	Quincy St	820'	4	near side	1	1	212	1	212	Cambridge	10	No	No	65	Relocate front sign closer to crosswalk to lengthen stop and add pavement markings.
33	110	Mass Av	Holyoke St - Holyoke Gate	N/A	N/A	near side	1, 68, 69	13	1405	500	2153	Cambridge	7	No	No		Add bus stop pavement markings.

Massachusetts Bay Transportation Authority

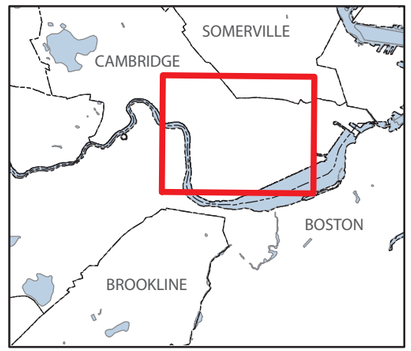
massDOT

Key Bus Route Improvement Program

Route 1

Proposed Recommendations Cambridge

- Route 1
- 110 Existing Stops w/ Bus Stop Identification No.
- Proposed Stops
- Proposed Eliminated Stops
- Rapid Transit Lines w/ Stations
- Commuter Rail w/ Stations
- P Traffic Signals (P = Pedestrian)
- 750 ft Distance between Existing Stops
- Municipal Boundaries



MAP SOURCE: MassGIS

0 500 1,000 2,000 Feet

McMAHON TRANSPORTATION ENGINEERS & PLANNERS

13 June 2011

See map "Boston" for continuation of route

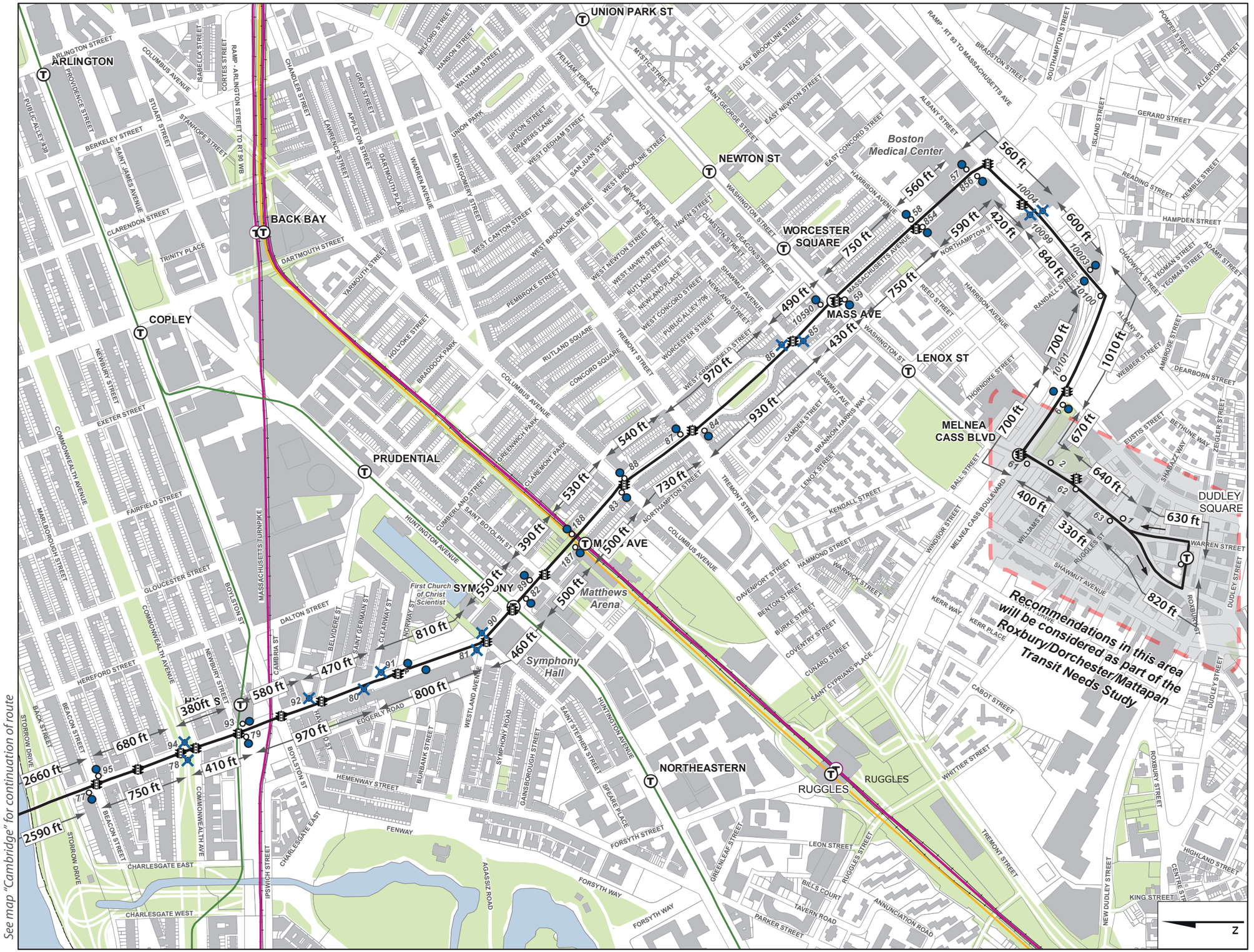
Massachusetts Bay Transportation Authority

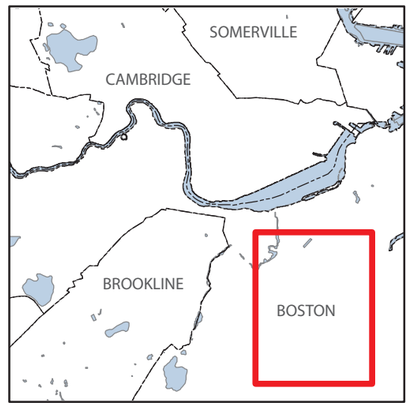
massDOT

Key Bus Route Improvement Program

Route 1

Proposed Recommendations Boston





MAP SOURCE: MassGIS

0 375 750 1,500 Feet

McMAHON TRANSPORTATION ENGINEERS & PLANNERS

13 June 2011